

# EL&P

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VOICE OF THE ELECTRIC UTILITY INDUSTRY

## PacifiCorp is 21st Utility of the Year

BARRINGTON, IL—PacifiCorp has been named the industry's 1989 Electric Utility of the Year by *Electric Light & Power*. This diversified utility was chosen for its entrepreneurial spirit, successful positioning in its various markets, and insight in its mergers and acquisitions—most recently, the merger with Utah Power & Light Co.

PacifiCorp is the 21st company to be selected since the Utility of the Year program was launched in 1969.

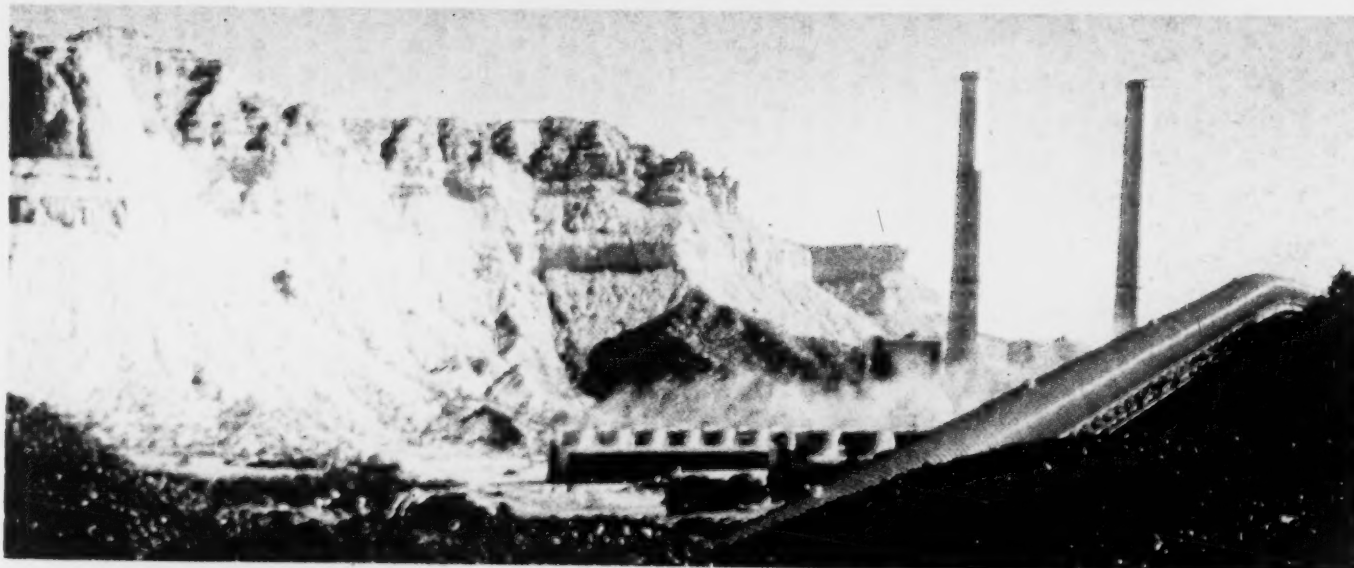
Based in Portland, OR, and in business since 1910, PacifiCorp derives 61 percent of its \$3.5 billion in annual revenues from providing electric service to seven western states. With the UP&L merger, it is the 12th largest U.S. electric utility in net income.

**EL&P's special report on PacifiCorp begins on page 12**

"PacifiCorp has been an industry leader in successful diversification, independence and using the strengths of the various divisions to enhance the corporation synergistically," said Robert A. Lincicome, *EL&P* editor-in-chief.

### Electric Utility of the Year 1969-1989

|      |                           |
|------|---------------------------|
| 1969 | Sierra Pacific Power      |
| 1970 | Florida Power Corp.       |
| 1971 | Virginia Electric & Power |
| 1972 | Northern States Power     |
| 1973 | Carolina Power & Light    |
| 1974 | Florida Power & Light     |
| 1975 | Southern Calif. Edison    |
| 1976 | Tampa Electric            |
| 1977 | Duke Power                |
| 1978 | Southwestern P.S.         |
| 1979 | New England Electric      |
| 1980 | Boston Edison             |
| 1981 | Atlantic Electric         |
| 1982 | Wisconsin Electric Power  |
| 1983 | Oklahoma Gas & Electric   |
| 1984 | Potomac Electric          |
| 1985 | South Carolina E&G        |
| 1986 | Minnesota Power           |
| 1987 | Consumers Power           |
| 1988 | General Public Utilities  |
| 1989 | PacifiCorp                |



The Hunter power plant, named after a former Utah Power & Light Co. chairman, is now owned and operated by PacifiCorp's Utah Power Division. Coal is trucked 10 miles from an underground mine.

When the 17-month merger with UP&L was completed Jan. 9, the companies' transition teams had already established plans for how it was to progress. This advance planning allowed for almost immediate savings and opportunities in the wholesale power market when a cold snap hit in February.

"The complementary nature of the electric divisions strategically positions the company for growth through the 1990s. Now PacifiCorp is following through with a program-by-program analysis, keeping the best of both companies," Lincicome pointed out.

Upon hearing of the award, top executives at PacifiCorp immediately credited the hard work and dedication of employees at all levels in all divisions for the company's success.

"We have a huge group of wonderful, dedicated people," explained Don C. Frisbee, chairman. "People attracted here have the entrepreneurial spirit. It's a different environment from the typical utility."

That spirit is one fostered from a corporate policy of allowing the various divisions to excel on their own merits. PacifiCorp owns:

- Two electric utility divisions, Pacific Power and Utah Power.
- 83-percent of NERCO Inc., a mining and resource development subsidiary.
- 87-percent of Pacific Telecom Inc., a local and long distance telecommunications firm.
- Various financial services.

The award will be presented to PacifiCorp's management on Nov. 15.

## ABB exercises option to acquire Westinghouse T&D joint venture

NEW YORK—Asea Brown Boveri announced its intention to acquire the 55 percent share held by Westinghouse Corp. in the jointly-owned Westinghouse ABB Power Transmission and Distribution Co.

ABB thus exercises its call option from the joint venture agreement last February. ABB will pay about \$370 million for Westinghouse's share when the transaction is completed Dec. 29, 1989, at which time the Westinghouse ABB Power T&D Co. will cease to exist and its operations and employees will become part of ABB.

Goran Lindahl, executive vice president of ABB Asea Brown Boveri Ltd., Zurich, and head of its world-

wide power transmission business, commented during the announcement in New York, "This action shows ABB's strong commitment to the U.S. and our determination to be close to our clients. With this significant addition, primarily to our business in the United States, but also to our operation in Argentina and Brazil, we will further enhance our capability to serve our utility and industrial markets."

### Metering stays in Raleigh

Its worldwide electric metering business will be based in Raleigh, NC. This division will coordinate all strategic market and product efforts on a worldwide basis.

The Westinghouse ABB Power T&D Co. estimated 1989 sales of about \$1

Continued on page 7

### Earthquake, p.18

Just 26 days after the Red Crosses' worst disaster ever—Hurricane Hugo—an Oct. 17 earthquake devastated areas in California's Bay Area. Preliminary utility damages are given on page 18. Watch for details in December.

**FERC Chairman** Martha Hesse resigned for a position at First Chicago Corp., parent of Chicago's First National Bank. Texas attorney Martin Allday is the administration's choice for Commissioner Charles Stalon's expired term, and the odds-on favorite for chairman.

**FERC's Transmission Task Force** released its report, summarizing wheeling issues. Some sources say it favors IPPs.

**Hurricane Hugo cleanup** reflects heroic efforts—p.3

### New firm offers one-stop shopping for coal plants

NEW YORK—Duke Power of Charlotte, NC, and Fluor Daniel Corporation of Irvine, CA, announced the formation of a new company to provide a full range of services for new and existing coal-fired power plants.

The new company, Duke/Fluor Daniel, will be headquartered in Charlotte with operating centers in both Charlotte and Chicago. It is organized as a 50-50 partnership with resources assigned from each parent company.

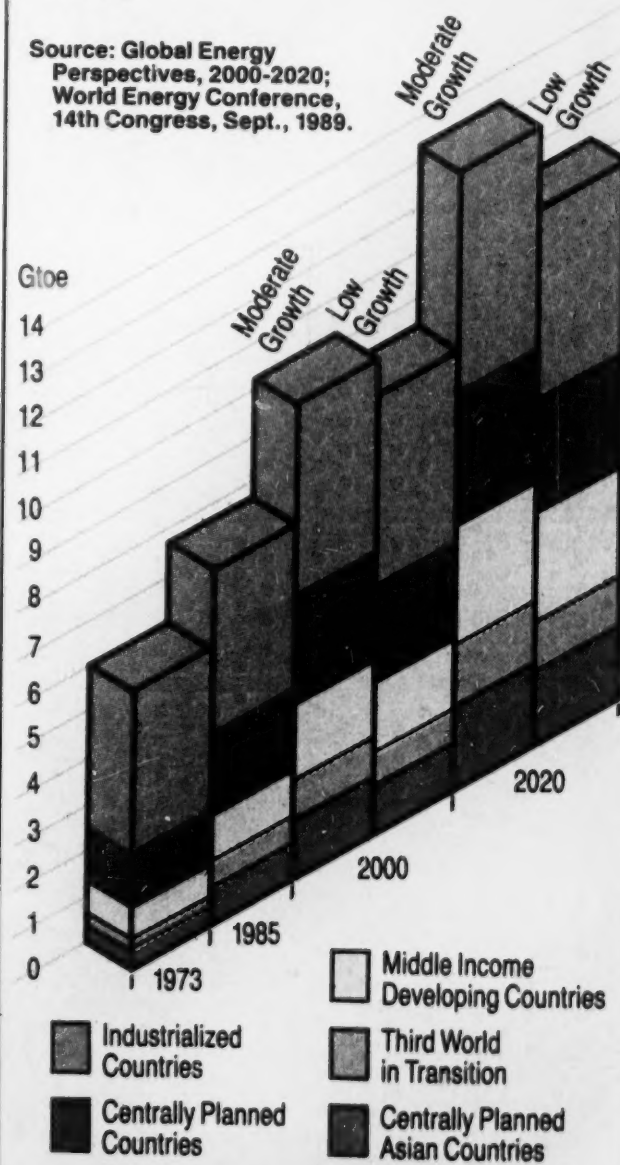
Ronald Green, president of the new company, said, "We offer the electric

Continued on page 6

### PRIMARY ENERGY DEMAND

World-wide demand for primary energy is expected to increase to as much as 13.5 Gt (Gigatons of oil equivalent) by 2020. As shown in the chart, developing nations' share will increase almost 50 percent from the 1985 level, while the share of the western industrialized countries will decline from 47 to 36 percent. In terms of sheer volume, the total Third World demand by 2020 could be more than the combined 1990 demand of the industrialized nations and centrally-planned countries in Europe. Countries above the equator will average use of about 5 toe per capita, while per-capita demand in nations south of the equator still will be below 1.0 toe.

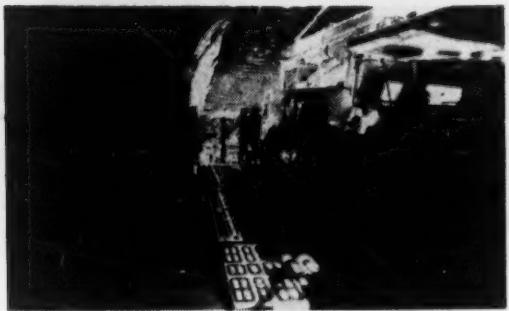
Source: Global Energy Perspectives, 2000-2020; World Energy Conference, 14th Congress, Sept., 1989.



## PSI asks FERC to okay flexible pricing for wholesale power sales

Public Service Indiana has asked the Federal Energy Regulatory Commission to allow it to sell long-term, wholesale power at negotiated prices. "We see selling our power at market prices to other utilities as a way to rebuild our financial health and mitigate future rate increases," explained PSI Chairman James E. Rogers Jr. "In exchange for increased pricing flexibility from FERC, we will also agree to allow utility and non-utility power generators greater access to our transmission system," Rogers added. If its request is approved, the utility said it hopes to begin selling power at market prices by 1990.

## SEI sends help to areas damaged by hurricane



Southern Electric International, a subsidiary of The Southern Company, coordinated the deployment of engineers, linemen and equipment to the Virgin Islands in the wake of Hurricane Hugo. Above, a bucket truck is loaded aboard a military transport in Birmingham, AL, for delivery to St. Croix.

## Dept. of Energy grants: schools receive \$6M; small businesses apply

The Department of Energy announced that it has chosen 18 universities to receive grants in nuclear engineering. DOE said the grants, which will total \$6 million over three years,

are part of a program to meet the nation's need for advances in nuclear engineering science and technology. "The education of new nuclear-trained engineers is a key element of the program—each grant award will include funding for graduate students to pursue advanced degrees in nuclear technology," stated Secretary of Energy James D. Watkins.

Grant applications are being accepted by the DOE as part of its eighth annual Small Business Innovation Research program. The department said its program is designed to strengthen the role of small, innovative firms (under 500 employees) in areas of research and development which are federally funded. Approximately 120 winners will receive awards of up to \$50,000 to explore the feasibility of their ideas, according to DOE. In addition, another \$500,000 will be available for those ideas with the most potential to meet the program's objectives. The deadline for grant applications is Jan. 23, 1990. For more information contact: SBIR Program Manager, U.S. Department of Energy, Washington, DC, 20545; (301) 353-5707.

## Insurance pools refund nuclear plant operators

As part of an Industry Credit Rating Plan, nuclear power plant operators have received insurance premium refunds of over \$9 million, according to American Nuclear Insurers (ANI) President Burt C. Proom. Under the plan, operated by ANI and Mutual Atomic Energy Liability Underwriters, 70 percent of each year's liability insurance premium is put into a reserve fund which is used to pay claims and claim expenses. After a ten-year period, the remainder of the fund is refunded to policyholders. "We believe these refunds illustrate the in-

surance industry's continuing confidence in the safety of nuclear power," stated Proom.

## SERI names director; invention wins award

Gene Mannella was appointed managing director of the Solar Energy Research Institute. Mannella, formerly director of Washington operations at the Electric Power Research Institute, succeeds H.M. Hubbard who will serve as SERI's executive director. SERI is owned by the Department of Energy and operated by the Midwest Research Institute.



In other news, a SERI invention was recognized by Research and Development magazine as one of the most significant technological advances in 1989. The Spectroscopic Scanning Tunneling Microscope was developed by Lawrence Kazmerski, principal scientist and manager of the photovoltaic measurements and performance branch at SERI's Solar Electric Research Division. The microscope makes it possible to view different atomic species, such as silicon and oxygen on a crystalline surface.

## Landguth is president at Black Hills Corp.

Daniel Landguth, formerly president and chief operating officer of Black Hills Power and Light Co., was named president of Black Hills Corp. He

succeeds Larry Owen, who will continue as chairman and chief executive officer. Everett Hoyt replaces Landguth at Black Hills Power and Light Co.

## PGE announces senior management changes

Portland General Electric and Portland General Corp. recently announced some senior management changes. E. Kay Stepp was appointed president of PGE, responsible for both the Generating and Energy Services Division. Walter M. Higgins is now senior vice president-Generating Division, and Donald E. Lengacher is senior vice president-Energy Services Division. CD Hobbs was named senior vice president and chief financial officer of PGE and Portland General.

## Iowa Power appoints Vorbrich president

Lynn K. Vorbrich was appointed president and chief operating officer of Iowa Power and Light Co. He succeeds the retiring Dwight H. Swanson, who was named director emeritus of Iowa Resources Inc.

## Casazza honored for T&D contributions

The Institute of Electrical and Electronics Engineers has presented its 1990 Herman Halperin Electric Transmission and Distribution Award to John A. Casazza, president of Casazza, Schultz & Associates Inc. IEEE recognized Casazza for his leadership in, and contributions to, the development and reliable utilization of electric power transmission systems. Casazza, who previously served as vice president of research and planning at Public Service Electric & Gas Co., has over 40 years of experience in transmission system development and use, transmission cost allocation and transmission contracts.

## EEL awards utilities for consumer programs

The Edison Electric Institute said it presented five electric utilities with its Common Goals Award for their outstanding consumer programs. The winners were: Arkansas Power & Light Co., Alabama Power Co., Wisconsin Electric Power Co., Puget Sound Power & Light Co., and Pennsylvania Electric Co. Utilities given Special Distinction awards include: Public Service Electric & Gas Co., Northern States Power Co., Potomac Electric Power Co., Southern California Edison Co., Atlantic Electric Co. and Pennsylvania Power & Light Co. The winners were selected from a field of 97 entries, according to EEL.

## Safety training offered

The Crane Inspection & Certification Bureau (CICB) has an-

nounced its safety training schedule for November 1989 through February 1990. CICB training courses include: mobile cranes and rigging considerations; overhead hoists; supervisor awareness; tower cranes; manbaskets; mobile crane operation; aerial lifts, and more. For more information contact CICB, 5874 S. Semoran Blvd., Orlando, FL 32822; or call (800) 327-1386; in Florida call (407) 277-0884.

## ASME boiler code is recognized as landmark

The American Society of Mechanical Engineers Boiler and Pressure Vessel Code has been designated as an international historic mechanical engineering landmark. The boiler code, published for 75 years, is an American national standard that affects boilers and other pressure vessels, according to ASME. The organization said the code is revised and published every three years with interim addenda to update information.

## OPPD, Westinghouse contract for fuel supply

The Omaha Public Power District has chosen Westinghouse Electric Corp. to supply fuel fabrication for its Fort Calhoun Station. Westinghouse said its commercial nuclear fuel division will supply three regions of fuel starting in August 1991. The contract will fulfill Fort Calhoun's fuel requirements through 1996, according to the company.

## Utilities fined by NRC

The Nuclear Regulatory Commission recently proposed the following fines:

**AZ Nuclear Power Project**  
A \$250,000 fine for alleged violations of NRC requirements involving preventive and corrective actions, operator training and procedures, and emergency lighting at the Palo Verde Nuclear Generating Station.

**Florida Power Corp.**  
A \$100,000 fine for alleged violation of NRC requirements related to environmental qualification of electrical equipment at the Crystal River nuclear power plant.

**So. Carolina Electric & Gas**  
A \$25,000 civil penalty for alleged noncompliance with Federal requirements by the use of an unauthorized operator in the control room of the V.C. Summer nuclear power plant.

**New York Power Authority**  
A \$50,000 fine for alleged failure to comply with NRC requirements for the physical protection of the Indian Point Unit 3 nuclear plant.

**Northeast Nuclear Energy**  
A \$25,000 fine for alleged violations of NRC requirements for the safe handling and shipment of equipment used to decontaminate the Unit 1 reactor cavity at the Millstone Nuclear Generating Station.

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# Line crews, other resources sent for Hugo cleanup

Mark T. Hoske  
News Editor

Hugo—the nation's tenth most severe recorded hurricane—will require clean-up and repairs to electrical systems well into November.

It left more than a half million customers without electrical service, some for periods of more than two weeks. Total damages, cost of repairs and lost revenue for electrical systems alone could exceed half a billion dollars. Utilities in at least a dozen states helped with the restoration and cleanup effort.

Line technicians were spared the trouble of restoring power to much of the South Carolina beach-front property, which washed away.

More than half the buildings on the U.S. Virgin Islands of St. Croix and St. Thomas were damaged. On Puerto Rico, 30,000 people were left homeless. Electrical system damage on Puerto Rico was estimated at \$20 million, said Public Power Weekly.

More than 400,000 people in South Carolina were left without electric service after hurricane Hugo's 135-mph winds snapped transmission and distribution poles, devastated substations and damaged some generating facilities Sept. 21-22. Hugo took 34 lives on the mainland. At least two people died in the restoration effort.

The federal government set aside \$1 billion for disaster aid. A sampling of the devastation and related difficulties can be seen in the Carolina Power and Light Co. photographs.

Mainland damage was most severe in and around Charleston, served by South Carolina Electric and Gas Co. Nearby Santee Cooper, Carolina Power & Light Co., Duke Power Co., also sustained severe damage.

Other utility systems in Florida, Georgia, the Carolinas and Virginia

Continued on page 7



At left, a Santee Cooper distribution transformer and a three-wire service line lay entangled on the ground near Moncks Corner, SC, with uprooted and snapped trees, showing Hugo's destructive force. A CP&L employee took this photograph on the way to Charleston.

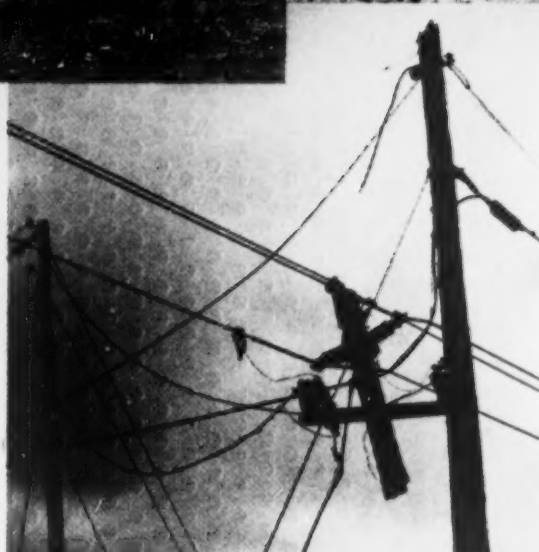


At left (center) CP&L transmission line crews near Sumter, SC, wallow through mud left by torrential rains that accompanied Hugo. The crews are replacing some of the 198 transmission structures taken out by Hugo. Fragments of wood poles litter the scene. Above, a transmission maintenance truck, buried past its axles, is towed by a tracked vehicle. Initially, even travel by road was difficult, because of the thousands of downed trees and debris.

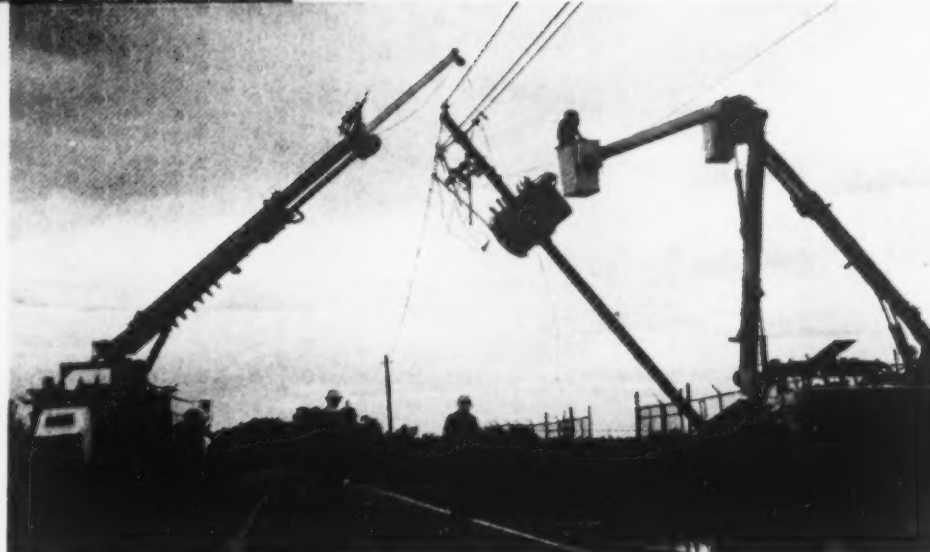
Below, a brick house survives, but not the nearby transformer, pole and lines.



At right, the top of a junction pole—a three-phase line with a two-phase tap—hangs suspended near Hartsville, SC.



At right, Carolina Power & Light crews work on a dangerously leaning pole that holds a three-phase circuit and three 100-kVA transformers, near Florence, SC.



## Purchasing management faces fewer market choices

Richard J. Metzler  
James R. Blomberg  
Richard Metzler & Associates

NORTHBROOK, IL—Utility purchasing management will face longer delivery times and firmer prices in the coming years as a result of reduced manufacturing capacity, narrowed product lines and fewer owners.

Those changes, combined with an expected upturn in utility spending, are shifting economic leverage from the buyer to the seller in the utility marketplace.

Utility purchasing management is now challenged to implement proactive methods and programs to keep pace with continuing market changes.

Over the past 15 years, sluggish utility spending for transmission and distribution facilities and equipment has severely taxed suppliers and their ability to survive. The downturn in generation construction expenditures since

1982 also has strained the financial performance of related manufacturers.

To protect themselves from market forces and position themselves to serve future market opportunities, utility suppliers have undergone an extensive restructuring. The net effects are reduced supplier manufacturing capacity, narrowed product lines and alternatives, fewer supplier companies and competitors.

Since 1980, construction spending for transmission equipment has first

*Look for the results of a survey on the future of purchasing in an upcoming issue.*

flattened and then declined, moving from \$2.35 billion in 1980, to \$2.25 billion in 1985, to \$2.07 billion in 1987.

Distribution spending remained flat from 1980 through 1983. Then it grew in the double digits, tied to the mid-1980's residential construction boom and fell off as construction slowed. If the effects of inflation are also considered, unit volumes have probably declined overall.

At the same time, a more dramatic decline occurred for generation construction spending. Spending peaked at \$25.3 billion in 1982 from \$19.2 billion in 1980, and then dropped to \$14.4 billion in 1987.

This pattern is a direct result of the decline in nuclear activity (no new plants have been ordered since 1973 without being cancelled) and steam orders. It also is a function of the regulatory and legislative environment.

Furthermore, a significant portion of the dollars classified as generation are

noncapacity equipment such as scrubbers and other environmental protection equipment. The net result has been a substantial drop in capacity shipments since 1980.

These constraints on domestic demand have driven suppliers to restructure, hedging their positions against market forces and strengthening their

financial base. Essentially, suppliers have moved in four directions:

- Traditional suppliers have withdrawn from selected product lines.
- Entire companies, as well as product lines, have been acquired by other participants.
- Alliances have been created through

Continued on page 4

### Sample of Supplier Industry Restructuring, 1984-89

| Year | Activity                                               | Products Affected                |
|------|--------------------------------------------------------|----------------------------------|
| 1984 | Cablec Acquired Phelps-Dodge Cable & Wire              | Cable & Wire                     |
| 1985 | Cablec Acquired Anaconda-Ericsson C&W Business         | Cable & Wire                     |
| 1985 | Cablec Acquired Essex C&W from United Technologies     | Cable & Wire                     |
| 1985 | Cooper Industries Acquired McGraw-Edison               | T&D                              |
| 1985 | Westinghouse Licensed Marketing Rights to Mitsubishi   | EHV Circuit Breakers             |
| 1987 | ASEA (Sweden) Merged with Brown-Boveri (Swiss)         | Generation, T&D                  |
| 1987 | Westinghouse Acquired GE's Transformer Business        | Transformers                     |
| 1988 | ABB Partnered with Babcock and Wilcox                  | Pressurized Fluid Bed Combustion |
| 1988 | Cablec Acquired Continental C&W from Anaconda-Ericsson | Cable & Wire                     |
| 1988 | Cablec Acquired Collyer Insulated Wire                 | Cable & Wire                     |
| 1988 | Combustion Engineering Joint Ventured with Alstom (FR) | Generation                       |
| 1988 | Cooper Industries Acquired RTE                         | Transformers                     |
| 1988 | General Electric Joint Ventured with GEC (U.K.)        | Distribution                     |
| 1988 | General Electric Joint Ventured with GEC and CGE (FR)  | Gas Turbines                     |
| 1988 | Pirelli Acquired General Cable                         | Cable & Wire                     |
| 1988 | Westinghouse Joint Ventured with ABB                   | T&D                              |
| 1989 | Cablec Acquired BRIntec                                | Cable & Wire                     |

### Capacity Additions, 1989-2000

| Plant Type               | Gigawatts |
|--------------------------|-----------|
| Electric Utilities       |           |
| Planned                  | 37        |
| Unplanned                |           |
| Coal-fired Steam         | 21        |
| Combined Cycle           | 36        |
| Combustion Turbine       | 16        |
| Total Unplanned          | 73        |
| Total Electric Utilities | 110       |
| Non-utilities            | 27        |

Source: Energy Information Administration, 8/89.

## Who should decide how air should be cleaned up?

The electric utility industry will have a new set of Clean Air regulations to live by before the end of 1990. Few argue this point. There is almost total agreement of the many interested factions that we will mount a new campaign to clean up the air we breathe, beginning in 1990.

Who would argue against cleaner air? Everyone I know is in favor of some sort of improved (whatever that means) Clean Air regulations. But I get a bit fearful when I begin to think of what that could mean...first, for the general public, and second, for the electric utility industry.

There's a tendency to oversimplify the problem of regulating pollution of the air. Utilities are very visible...and their plants do put a substantial amount of visible material into the air. It always has been easy to focus on utilities as the bad guys...the ones in the black hats...who ought to be made to clean up their acts.

I wouldn't argue that a number of utilities have plants that are culprits in the fight for clean air. But many utilities have plants that are advancing clean-air technology. In fact, over the years since the environment became something to work for, rather than simply exist in, utilities have led American industry's efforts. They have recognized their corporate citizenship roles and their responsibilities to reduce hazardous stack emissions.

For example, from 1973 through 1987, utilities increased their use of coal for generation by more than 87 percent. At the same time, they reduced their release of SO<sub>2</sub> by more than 21 percent. During the same period, most other industrial entities did little, or nothing.

But as things stand now, utilities would be penalized for what they have done in the past. The current proposals would put caps on emissions and plant capacity factors. They would affect different types of plants in different ways, but generally would reduce effective use of existing facilities. It would penalize most those facilities that have been operating in environmentally responsible ways.

Over the next 20 years, consumers would be called upon to pay \$120 billion—an average of \$6 billion per year—in added cost for their electricity if the administration's proposals pass, according to industry estimates. In fact, Deputy Secretary of Energy W. Henson Moore recently told the Governing Board and Management Committee of the International Energy Agency that the cost will rise to \$28-\$38 billion in that period.

There are a lot of problems with the administration's package. Perhaps the largest is that our government can't resist the opportunity to practice one-upsmanship with the industries it proposes to legislate. Look at what's been done for the American farmer—specific programs paid farmers not to raise certain crops, yet we have over-surpluses of some commodities, farmer bankruptcies and destruction of the American family farm economy.

Or the food and drug industry, where our passion for a no-risk society requires infinite time and carloads of statistical data for the FDA to assess the safety and probability of a product's safety, forcing eventual costs into the stratosphere, and reducing R&D that otherwise might benefit humanity.

Or the nuclear industry, where regulations have become so specific and so cumbersome...measured in thousands of pages...that even computers are hard-pressed to keep up with them and mere humans are almost totally lacking in the ability.

Why can't the government...Congress and the Federal departmental bureaucracy...set up goals and let the respective industries figure out how to best meet those goals. Why not set up incentives for achievement and penalties for failure. Instead, they specify what is to be done, then, and in detail, proceed to tell the doers, the real experts, how to do it, despite knowing little or nothing about the subject or process under consideration.

How much better, in the case of the Clean Air proposals specifically, if they would work with those who seek a cleaner environment and those that must actually provide it to determine realistic and practical goals, then let the regulated be left the task of complying.

Given a flexible regulatory mandate, utilities of all types could find optimum ways to meet the goals and save their customers...the consumers who ultimately must pay for anything they receive (whether or not they want it)...substantial amounts of money. Projected savings of 20-30 percent make consideration of alternatives to the administration's proposals worth fighting for.

from page 3

## Purchasing management choices...

joint ventures, licensing and marketing arrangements.

• Foreign sources (particularly European) have linked with U.S. suppliers.

A recent Salomon Brothers report illustrates the effects of restructuring. It cited a cut in generation supplier manufacturing capacity of 50 percent since 1975, to a level of about 12,000-15,000 MW annually. Furthermore, the remaining participants are currently operating at 20 to 30 percent of this reduced level.

Other effects are the consolidation, partnering, and globalization of industry participants. This activity has reduced the number of available suppliers, but strengthened the financial and/or product base of those remaining.

### Spending rebound

Looking ahead, spending by U.S. electric utility organizations for new plants and facilities is projected at \$128.7 billion for the five years, 1989-93 (EL&P, Jan., p.1), a 5.9-percent increase over previous projections for the five years, 1988-92. This suggested uptrend is also illustrated by Energy Information Administration's recent projection that 110 GW of new generating capacity will be needed by the year 2000.

The combination of supplier restructuring and rebounding utility spending has shifted economic leverage from buyer to seller.

Delivery times are increasing: In the middle of last summer's record heat, transformer delivery times more than doubled, from 12 to 26 weeks, an increase attributed to the abandonment, consolidation and downsizing of product lines.

So far, prices have not been impacted beyond the normally scheduled increases. But as the market tightens, prices can be expected to rise beyond historical rates in the next six to 18 months.

Similarly, given the industry's needs for new generating capacity, an order boom is very likely to start in the next several years. However, with supplier capacity limitations, utilities can almost certainly count on more lengthy delivery times, if not significantly higher prices. As these trends intensify, the demands on purchasing management will also grow.

### Requirements for success

These growing challenges can be met successfully in four ways.

First, purchasing management must recognize its changing environment, confront the resultant issues, and com-

municate its evolving position to utility management and all constituent organizations. As the industry restructures, from both a supplier and utility viewpoint, new forces will impact the purchasing function. Without recognizing these changes and communicating within its organization, purchasing management will be ill-equipped to meet both departmental and overall utility objectives.

Second, to ensure that shareholder and ratepayer goals are met, utilities must become more active in working with suppliers to define and develop future product/service requirements.

Purchasing management must become more involved with evaluators and specifiers, and work as both a partner and a conduit to communicate with suppliers.

This will provide two benefits: more timely coordination, incorporation, and implementation of evolving requirements into the utility plant, and greater supplier commitment to supporting utility operations.

Third, material requirements planning will take on heightened importance as lead times increase and the number of suppliers shrinks. More stringent, detailed forecasting is required to ensure that the proper mix and level of inventories are on hand.

The purchasing response must be a combination of advance ordering to guarantee a delivery interval and firm price, and an increase in the safety stock of critical inventories to guard against shortages and long lead times.

Fourth, purchasing management must develop a purchasing operations plan incorporating the evolving product/service requirements of the utility, along with a recognition of the increased complexity of the supplier environment.

This plan should include a review of potential software and system enhancements, increased emphasis on data analysis, establishment of a purchasing research function, and the required staffing levels for support.

Development of this plan will validate existing objectives and processes, as well as develop enhanced methods to meet its primary objective: maximizing spending efficiency and minimizing operational risk.

The purchasing function is exposed to the structural and economic changes in the electric utility industry. Purchasing management must take the proactive steps required to stay ahead of these changes to further the interests of its department and utility.

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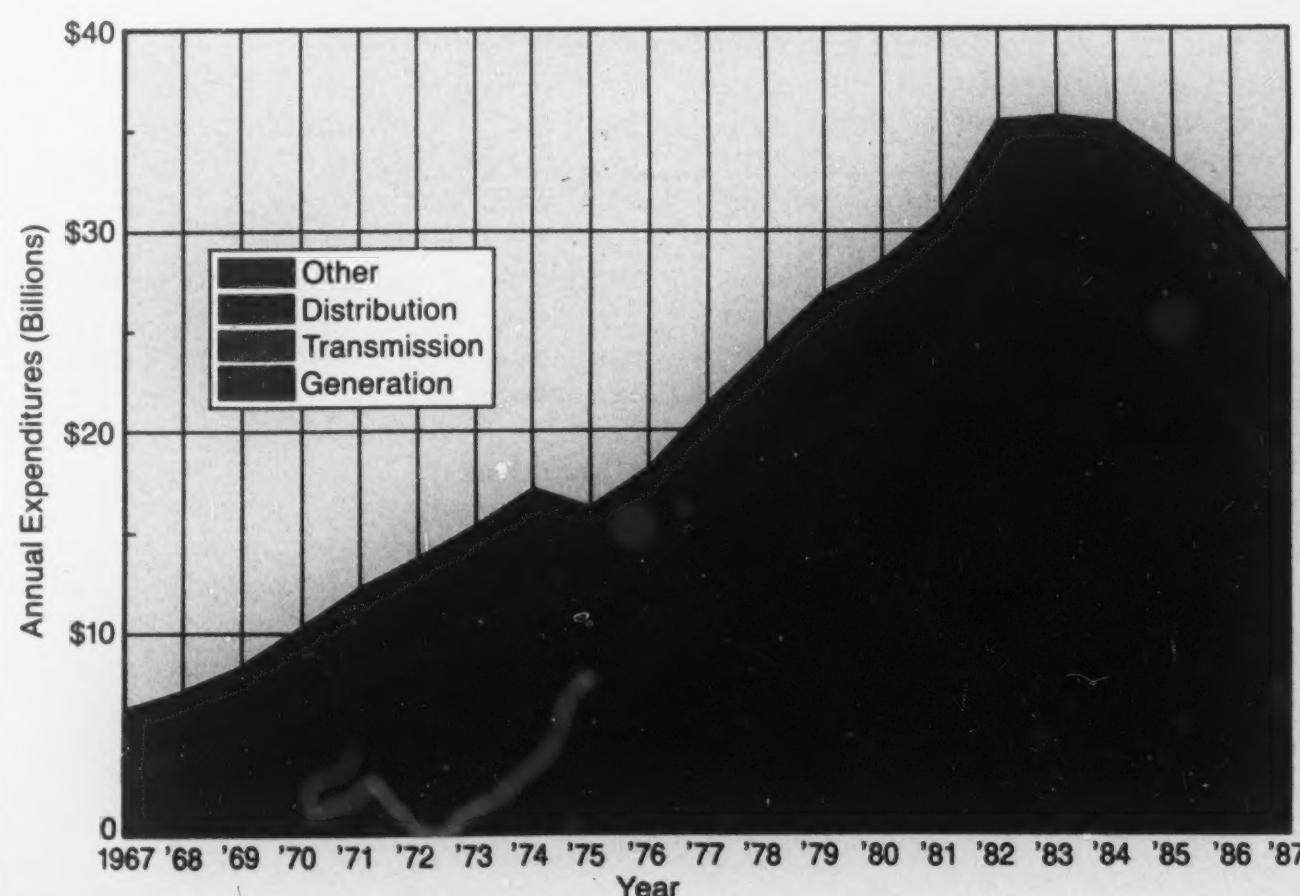
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Source: Edison Electric Institute Statistical Yearbook of the Electric Utility Industry/1987.